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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,670	09/30/2004	Yi-Bing Lee	12847-US-PA	5669

31561 7590 12/05/2008
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

EXAMINER

LEE, PING

ART UNIT	PAPER NUMBER
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2614

NOTIFICATION DATE	DELIVERY MODE
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12/05/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USA@JCIPGROUP.COM.TW
Belinda@JCIPGROUP.COM.TW

Office Action Summary	Application No.	Applicant(s)	
	10/711,670	LEE ET AL.	
	Examiner	Art Unit	
	Ping Lee	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8 and 10-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8 and 10-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 2, 5-8 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshioka et al (hereafter Yoshioka) (US 2002/0037707 A1) in view of Baumhauer, Jr. et al (hereafter Baumhauer) (US005121426A).

Regarding claim 1, 5-8, 11, 13-15 and 17, Yoshioka discloses a microphone module communication device for a teleconference system, comprising,

a first microphone module (13) for receiving a near-end audio signal and amplifying the near-end audio signal to produce a first audio signal (para. 46);

wherein the microphone module communication device is characterized in that the first microphone module faces at least a user at a predetermined direction for receiving the near-end audio signal and a loudspeaker (14) faces a direction within a range just opposite to the predetermined direction, and the direction in which the loudspeaker outputs a far-end audio signal is opposite to the predetermined direction (para. 78).

Yoshioka fails to show the combination of a first microphone module, a second microphone module and a mixer circuit. Yoshioka teaches a general microphone module for picking up a user's voice. One skilled in the art would have expected that other specific type of microphone module, including pressure-gradient microphone module, could be used without generating any unexpected result. Baumhauer teaches

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the advantages of using pressure gradient microphone as the input module for a teleconference system. As shown in Fig. 10, the module has multiple microphone ports. As shown in Fig. 6, a first microphone module (200-1) and a second microphone module (200-2) wherein the second microphone module has a fixed gain (there is not gain modification for the signal from 200-2 to 230) and the second microphone module shifts (by 220) a phase of the near-end audio signal to produce a second audio signal with a phase difference relative to the near-end audio signal; and a mixer circuit (230) for receiving the first audio signal and the second audio signal and subtracting the second audio signal from the first audio signal to produce a third audio signal. By utilizing the input module as taught in Baumhauer, the ambient noise and reverberation occurred within a room (or the enclosed environment containing the microphone module) would be greatly reduced. Thus, it would have been obvious to one of ordinary skill in the art to modify Yoshioka by replacing the general microphone with the input module as taught in Baumhauer in order to improve the speech reception and reduce the interference.

Regarding claim 2, as shown in Fig. 1, Yoshioka's device also has a control unit (5, 15) that receives the gar-end audio signal, and converts the signal from the microphone into an electrical audio frequency signal and transmits to the far-end communication terminal via the communication network (although not shown, it is inherently included). See also para. 0003.

Regarding claims 12 and 16, although Yoshioka fails to explicitly show the public telephone exchange network, it is inherently included to provide communication between two terminals using telephone number. See para. 0036 and 0042.

3. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshioka and Baumhauer as applied to claims 1 and 8 above, and further in view of Miller, II (US 5,029,215) (hereafter Miller).

Regarding claims 4 and 10, Baumhauer fails to show a gain modulation circuit. Baumhauer teaches the basic second-order pressure gradient microphone system without providing the detail circuitry coupled to each microphone. Miller teaches the specific of having a pre-amplifier coupled to each microphone. See. Fig. 3. Thus, it would have been obvious to one of ordinary skill in the art to further modify Yoshioka and Baumhauer by having pre-amplifier coupled to the microphones as taught by Miller in order to amplify the microphone signal to proper signal level.

Response to Arguments

4. Applicant's arguments with respect to claims 1, 8 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522. The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ping Lee/
Primary Examiner, Art Unit 2614

pwl